



Department of Energy

Washington, DC 20585

May 26, 2004

Mr. Roger Zavadoski
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, NW, Suite 700
Washington, D.C. 20004-2941

Dear Mr. Zavadoski:

The Secretary of Energy, in his July 11, 2003 letter to the Defense Nuclear Facilities Safety Board (DNFSB) on High Efficiency Particulate Air (HEPA) filter testing, committed the Office of Environment, Safety and Health (EH) to publish a semiannual report on Filter Test Facility (FTF) data. This is the second report published by EH and includes FTF data for the first six months of FY 2004. The attached Table provides the results of filter inspections and tests performed at the FTF for the period October 1, 2003 through March 31, 2004.

The report indicates that the HEPA filter failures continue at a rate consistent with previous years. I also visited the FTF in February to observe testing. During that visit, a supplier repaired 36 defective HEPAs at FTF preventing delays in deliveries to DOE sites. Questions concerning this report may be directed to me at (301) 903-4218 or Chip.Lagdon@eh.doe.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Lagdon, Jr.", written in a cursive style.

Richard H. Lagdon, Jr.
Director
Office of Quality Assurance Programs

Attachment

cc: Mark B. Whitaker, DR-1
Frank B. Russo, EH-3



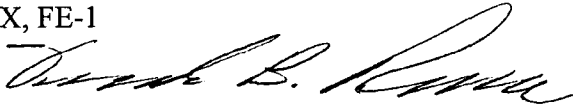


Department of Energy

Washington, DC 20585

June 9, 2004

MEMORANDUM FOR: EVERET H. BECKNER, NA-1
JESSIE HILL ROBERSON, EM-1
RAYMOND L. ORBACH, SC-1
WILLIAM D. MAGWOOD, NE-1
DAVID K. GARMAN, EE-1
MARK R. MADDOX, FE-1

FROM: FRANK B. RUSSO 
DEPUTY ASSISTANT SECRETARY
OFFICE OF CORPORATE PERFORMANCE
ASSESSMENT

SUBJECT: REPORT ON FILTER TEST FACILITY DATA
FOR FIRST SIX MONTHS OF FY 2004

The Secretary of Energy, in his July 11, 2003, letter to the Defense Nuclear Facilities Safety Board (DNFSB) on High Efficiency Particulate Air (HEPA) filter testing, committed the Office of Environment, Safety and Health (EH) to publish a semiannual report on Filter Test Facility (FTF) data. This is the second report published by EH and includes FTF data for the first six months of FY 2004. The attached Table provides the results of filter inspections and tests performed at the FTF for the period October 1, 2003, through March 31, 2004.

The data indicates that the failure rate for filters (6.5 percent) continues at approximately the same rate as previous years. One hundred twenty or 5.5 percent of the total number of filters inspected were rejected due to shipping damage, manufacturing defects and/or not meeting customer specifications. The consolidated testing and inspection at FTF reduced receipt and inspection problems at the various sites because the vendor repaired a lot of 36 defective filters at the test facility. Guidance is provided in DOE-HDBK-1169-2003, *Nuclear Air Cleaning Handbook* to assist in identifying defects during receiving inspections. The test data indicate that continued independent testing and receipt inspections are necessary for HEPA filters used in DOE nuclear facilities.



If you have questions regarding the semiannual FTF data, please contact me or Richard H. Lagdon, Office of Quality Assurance Programs (EH-31) at (301) 903-4218.

Attachment

cc:

Mark B. Whitaker, DR-1

James J. Mangeno, NA-1

Xavier Ascanio, NA-124

Rabindra N. Singh, NA-124

Paul M. Golan, EM-3

Patricia M. Bubar, EM-20

Larry D. Vaughan, EM-5

Milton D. Johnson, SC-1

Gary T. Staffo, EE-3C

Craig D. Zamuda, FE-7

Richard H. Lagdon, EH-31

Table 1
Results of Filter Inspection and Tests
October 1, 2003 - March 31, 2004

| Customer | Manufacturer | Flow | Flow High/Low | Number Tested | Number Accepted | Number Rejected | Reason for Rejection | | | | Rejection Rate | |
|--------------------------------|--------------|------|---------------|---------------|-----------------|-----------------|----------------------|-------------|-----------------------|------------------------------|----------------|-----------------|
| | | | | | | | Resistance | Penetration | Manufacturing Defects | Does not meet PO and/or Spec | | Shipping damage |
| Bechtel BWXT Idaho, LLC.(BBWI) | Supplier A | 1000 | H | 8 | 7 | 1 | | | 1 | | | 12.5% |
| | Supplier A | 1000 | H | 40 | 36 | 4 | | | 3 | | 1 | 10.0% |
| | Supplier A | 1000 | H | 1 | 1 | 0 | | | | | | |
| | Supplier A | 1000 | H | 111 | 111 | 0 | | | | | | |
| | Supplier A | 100 | L | 2 | 2 | 0 | | | | | | |
| | Supplier A | 35 | L | 6 | 6 | 0 | | | | | | |
| Bechtel BWXT Y-12 | Supplier B | 1500 | H | 4 | 3 | 1 | | | 1 | | | 25.0% |
| | Supplier B | 1500 | H | 2 | 1 | 1 | | | | 1 | | 50.0% |
| | Supplier B | 1000 | H | 1 | 0 | 1 | | | 1 | | | 100.0% |
| | Supplier A | 1000 | H | 11 | 11 | 0 | | | | | | |
| | Supplier A | 250 | L | 6 | 4 | 2 | | | 2 | | | 33.3% |
| | Supplier A | 250 | L | 2 | 2 | 0 | | | | | | |
| | * Supplier A | 100 | L | 24 | 12 | 12 | | 2 | | 10 | | 50.0% |
| | * Supplier A | 50 | L | 4 | 4 | 0 | | | | | | |
| AEA Technology | Supplier A | 1000 | H | 2 | 1 | 1 | | | | 1 | | 50.0% |
| | Supplier A | 1000 | H | 1 | 1 | 0 | | | | | | |
| Bechtel Jacobs X-10 | Supplier A | 1000 | H | 12 | 12 | 0 | | | | | | |
| | Supplier A | 1000 | H | 6 | 6 | 0 | | | | | | |
| Duratek Federal Services X10 | Supplier A | 1000 | H | 1 | 0 | 1 | | | 1 | | | 100.0% |
| | Supplier B | 1000 | H | 5 | 5 | 0 | | | | | | |
| | Supplier B | 125 | | 1 | 1 | 0 | | | | | | |
| Foster Wheeler | Supplier C | 2200 | H | 2 | 2 | 0 | | | | | | |
| | * Supplier C | 2200 | H | 48 | 44 | 4 | | 4 | | | | 8.3% |
| | * Supplier C | 2200 | H | 48 | 40 | 8 | | 1 | | 7 | | 16.7% |
| | * Supplier C | 2200 | H | 48 | 45 | 3 | | | | 3 | | 6.3% |
| | Supplier C | 2200 | H | 5 | 5 | 0 | | | | | | |
| UT Battelle | Supplier C | 2200 | H | 15 | 13 | 2 | | | 2 | | | 13.3% |
| | Supplier B | 50 | L | 3 | 3 | 0 | | | | | | |
| | Supplier A | 35 | L | 1 | 1 | 0 | | | | | | |
| BWXT Pantex, LLC | Supplier A | 1000 | H | 8 | 7 | 1 | | 1 | | | | 12.5% |
| CH2M Hill Hanford | Supplier A | 1500 | H | 20 | 20 | 0 | | | | | | |
| | Supplier A | 1000 | H | 6 | 6 | 0 | | | | | | |
| | Supplier A | 1000 | H | 6 | 6 | 0 | | | | | | |
| | Supplier A | 1000 | H | 6 | 4 | 2 | | 1 | | 1 | | 33.3% |
| | Supplier A | 500 | H | 12 | 11 | 1 | | 1 | | | | 8.3% |

Table 1
Results of Filter Inspection and Tests
October 1, 2003 - March 31, 2004

| Customer | Manufacturer | Flow | Flow High/Low | Number Tested | Number Accepted | Number Rejected | Resistance | Penetration | Manufacturing Defects | Does not meet PO and/or Spec | Shipping damage | Rejection Rate |
|----------------------------------|-------------------------|------------|---------------|---------------|-----------------|-----------------|------------|-------------|-----------------------|------------------------------|-----------------|----------------|
| Reason for Rejection | | | | | | | | | | | | |
| CH2M Hill Hanford | Supplier A | 500 | H | 1 | 0 | 1 | | | | | | 100.0% |
| | Supplier A | 500 | H | 1 | 1 | 0 | | | | | | |
| | Supplier A | 500 | H | 5 | 5 | 0 | | | | | | |
| | Supplier A | 250 | L | 1 | 1 | 0 | | | | | | |
| | Supplier A | 250 | L | 6 | 6 | 0 | | | | | | |
| | Supplier A | 250 | L | 9 | 9 | 0 | | | | | | |
| | Supplier A | 1000 | H | 4 | 4 | 0 | | | | | | |
| | Supplier A | 1000 | H | 4 | 4 | 0 | | | | | | |
| | Supplier A | 1500 | H | 4 | 4 | 0 | | | | | | |
| | Supplier A | 1500 | H | 4 | 4 | 0 | | | | | | |
| Fluor Hanford | Supplier A | 1500 | H | 4 | 4 | 0 | | | | | | |
| | Supplier A | 1000 | H | 4 | 4 | 0 | | | | | | |
| | Supplier A | 1000 | H | 9 | 9 | 0 | | | | | | |
| | Supplier A | 250 | L | 6 | 6 | 0 | | | | | | |
| | Supplier A | 125 | L | 5 | 5 | 0 | | | | | | |
| | Supplier A | 125 | L | 4 | 4 | 0 | | | | | | |
| | Supplier A | 50 | L | 8 | 8 | 0 | | | | | | |
| | Supplier A | 1500 | H | 4 | 4 | 0 | | | | | | |
| | Supplier A | 1500 | H | 4 | 4 | 0 | | | | | | |
| | Kaiser-Hill Company LLC | Supplier A | 1500 | H | 4 | 4 | 0 | | | | | |
| Supplier A | | 1500 | H | 16 | 16 | 0 | | | | | | |
| Supplier A | | 1500 | H | 14 | 14 | 0 | | | | | | |
| Supplier A | | 1500 | H | 90 | 88 | 2 | | | | 2 | | 2.2% |
| Supplier A | | 1500 | H | 12 | 12 | 0 | | | | | | |
| Supplier A | | 1500 | H | 2 | 2 | 0 | | | | | | |
| Supplier A | | 1500 | H | 4 | 4 | 0 | | | | | | |
| Supplier A | | 1000 | H | 18 | 18 | 0 | | | | | | |
| Supplier B | | 1500 | H | 2 | 1 | 1 | | | 1 | | | |
| Supplier B | | 1000 | H | 6 | 5 | 1 | | | | | | 16.7% |
| Lawrence Livermore National Lab. | Supplier B | 1000 | H | 65 | 63 | 2 | | | | | 2 | 3.1% |
| | Supplier B | 1000 | H | 2 | 2 | 0 | | | | | | |
| | Supplier A | 1000 | H | 30 | 30 | 0 | | | | | | |
| | Supplier A | 1000 | H | 45 | 45 | 0 | | | | | | |
| | Supplier A | 1000 | H | 1 | 1 | 0 | | | | | | |
| | Supplier A | 105 | H | 3 | 3 | 0 | | | | | | |
| | Supplier D | 1500 | H | 3 | 3 | 0 | | | | | | |
| | Supplier D | 1500 | H | 1 | 1 | 0 | | | | | | |
| | Supplier B | 1500 | H | 1 | 1 | 0 | | | | | | |
| | Supplier A | 1250 | H | 6 | 6 | 0 | | | | | | |
| Los Alamos National Laboratory | Supplier A | 1000 | H | 1 | 1 | 0 | | | | | | |
| | Supplier A | 1000 | H | 1 | 1 | 0 | | | | | | |
| | Supplier A | 1000 | H | 45 | 45 | 0 | | | | | | |
| | Supplier A | 1000 | H | 30 | 30 | 0 | | | | | | |
| | Supplier A | 1000 | H | 2 | 2 | 0 | | | | | | |
| | Supplier B | 1000 | H | 63 | 63 | 0 | | | | | | |
| | Supplier B | 1000 | H | 5 | 5 | 0 | | | | | | |
| | Supplier A | 1000 | H | 4 | 4 | 0 | | | | | | |
| | Supplier A | 1000 | H | 18 | 18 | 0 | | | | | | |
| | Supplier B | 1500 | H | 2 | 1 | 1 | | | 1 | | | 50.0% |
| Lawrence Livermore National Lab. | Supplier B | 1500 | H | 5 | 3 | 2 | | | 2 | | | 40.0% |
| | Supplier B | 1500 | H | 1 | 1 | 0 | | | | | | |
| | Supplier B | 1500 | H | 1 | 1 | 0 | | | | | | |
| | Supplier A | 1000 | H | 6 | 6 | 0 | | | | | | |
| | Supplier A | 1000 | H | 2 | 2 | 0 | | | | | | |
| | Supplier A | 1500 | H | 12 | 12 | 0 | | | | | | |
| | Supplier A | 1500 | H | 14 | 14 | 0 | | | | | | |
| | Supplier A | 1500 | H | 14 | 14 | 0 | | | | | | |
| | Supplier A | 1500 | H | 16 | 16 | 0 | | | | | | |
| | Supplier A | 1500 | H | 16 | 16 | 0 | | | | | | |
| Fluor Hanford | Supplier A | 200 | L | 2 | 2 | 0 | | | | | | |
| | Supplier A | 200 | L | 24 | 24 | 0 | | | | | | |
| | Supplier A | 200 | L | 20 | 20 | 0 | | | | | | |
| | Supplier A | 200 | L | 5 | 5 | 0 | | | | | | |
| | Supplier A | 200 | L | 5 | 5 | 0 | | | | | | |
| | Supplier A | 250 | L | 6 | 6 | 0 | | | | | | |
| | Supplier A | 250 | L | 6 | 6 | 0 | | | | | | |
| | Supplier A | 250 | L | 1 | 1 | 0 | | | | | | |
| | Supplier A | 250 | L | 1 | 1 | 0 | | | | | | |
| | Supplier A | 500 | H | 5 | 5 | 0 | | | | | | |
| CH2M Hill Hanford | Supplier A | 500 | H | 1 | 1 | 0 | | | | | | |
| | Supplier A | 500 | H | 1 | 1 | 0 | | | | | | |
| | Supplier A | 500 | H | 5 | 5 | 0 | | | | | | |
| | Supplier A | 500 | H | 5 | 5 | 0 | | | | | | |
| | Supplier A | 500 | H | 1 | 1 | 0 | | | | | | |
| | Supplier A | 500 | H | 1 | 1 | 0 | | | | | | |
| | Supplier A | 500 | H | 1 | 1 | 0 | | | | | | |
| | Supplier A | 500 | H | 1 | 1 | 0 | | | | | | |
| | Supplier A | 500 | H | 1 | 1 | 0 | | | | | | |
| | Supplier A | 500 | H | 1 | 1 | 0 | | | | | | |

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|---|--------------|------|---------------|---------------|-----------------|-----------------|----------------------|-------------|-----------------------|------------------------------|----------------|-----------------|
| | | | | | | | Resistance | Penetration | Manufacturing Defects | Does not meet PO and/or Spec | | Shipping damage |
| Los Alamos National Laboratory | Supplier A | 1000 | H | 3 | 3 | 0 | | | | | | |
| | Supplier A | 1000 | H | 100 | 92 | 8 | | | 8 | | | 8.0% |
| | Supplier A | 1000 | H | 100 | 98 | 2 | | | 2 | | | 2.0% |
| | Supplier A | 1000 | H | 10 | 10 | 0 | | | | | | |
| | Supplier A | 1000 | H | 30 | 30 | 0 | | | | | | |
| | Supplier A | 350 | H | 2 | 2 | 0 | | | | | | |
| | Supplier A | 250 | L | 2 | 2 | 0 | | | | | | |
| | Supplier A | 250 | L | 2 | 2 | 0 | | | | | | |
| | Supplier A | 205 | L | 1 | 1 | 0 | | | | | | |
| | Supplier A | 160 | L | 1 | 1 | 0 | | | | | | |
| | Supplier A | 50 | L | 20 | 20 | 0 | | | | | | |
| | Supplier A | 50 | L | 20 | 20 | 0 | | | | | | |
| | Supplier A | 35 | L | 20 | 20 | 0 | | | | | | |
| | Supplier A | 35 | L | 20 | 20 | 0 | | | | | | |
| Supplier A | 35 | L | 20 | 20 | 0 | | | | | | | |
| KSL Shaw Los Alamos National Laboratory | Supplier A | 160 | L | 1 | 1 | 0 | | | | | | |
| Washington TRU Solutions | Supplier A | 350 | H | 4 | 4 | 0 | | | | | | |
| West Valley Nuclear Services | **Supplier D | 1500 | H | 12 | 12 | 0 | | | | | | |
| Westinghouse Savannah River Company | Supplier A | 1500 | H | 94 | 83 | 11 | | | 11 | | | 11.7% |
| | Supplier A | 1500 | H | 51 | 49 | 2 | | | | 2 | | 3.9% |
| | Supplier A | 1500 | H | 22 | 21 | 1 | | | 1 | | | 4.5% |
| | Supplier A | 1500 | H | 10 | 9 | 1 | | | | | 1 | 10.0% |
| | Supplier A | 1500 | H | 20 | 19 | 1 | | | 1 | | | 5.0% |
| | Supplier A | 1500 | H | 9 | 9 | 0 | | | | | | |
| | Supplier A | 1500 | H | 28 | 27 | 1 | | | 1 | | | 3.6% |
| | Supplier A | 1500 | H | 146 | 135 | 11 | | 1 | 5 | 5 | | 7.5% |
| | Supplier A | 1500 | H | 24 | 24 | 0 | | | | | | |
| | Supplier A | 1500 | H | 14 | 14 | 0 | | | | | | |
| | Supplier A | 1500 | H | 6 | 6 | 0 | | | | | | |
| | Supplier A | 1500 | H | 2 | 2 | 0 | | | | | | |
| | Supplier A | 1500 | H | 2 | 2 | 0 | | | | | | |
| | Supplier A | 1500 | H | 36 | 0 | 36 | | | | 36 | | 100.0% |
| Supplier A | 1500 | H | 36 | 36 | 0 | | | | | | | |
| Supplier A | 1250 | H | 4 | 4 | 0 | | | | | | | |

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October 1, 2003 - March 31, 2004

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|-------------------------------------|--------------|------|---------------|---------------|-----------------|-----------------|----------------------|-------------|-----------------------|------------------------------|----------------|-----------------|
| | | | | | | | Resistance | Penetration | Manufacturing Defects | Does not meet PO and/or Spec | | Shipping damage |
| Westinghouse Savannah River Company | Supplier A | 1250 | H | 10 | 10 | 0 | | | | | | |
| | Supplier A | 1250 | H | 4 | 4 | 0 | | | | | | |
| | Supplier A | 1250 | H | 4 | 4 | 0 | | | | | | |
| | Supplier A | 1000 | H | 5 | 5 | 0 | | | | | | |
| | Supplier A | 1000 | H | 13 | 13 | 0 | | | | | | |
| | Supplier A | 1000 | H | 20 | 19 | 1 | | 1 | | | | 5.0% |
| | Supplier A | 1000 | H | 10 | 10 | 0 | | | | | | |
| | Supplier A | 1000 | H | 20 | 17 | 3 | | 3 | | | | 15.0% |
| | Supplier A | 1000 | H | 60 | 59 | 1 | | | | 1 | | 1.7% |
| | Supplier A | 455 | H | 3 | 3 | 0 | | | | | | |
| | Supplier A | 455 | H | 3 | 2 | 1 | | 1 | | | | 33.3% |
| | Supplier A | 250 | L | 4 | 4 | 0 | | | | | | |
| | Supplier A | 250 | L | 1 | 1 | 0 | | | | | | |
| | Supplier A | 125 | L | 4 | 4 | 0 | | | | | | |
| | Supplier A | 125 | L | 8 | 8 | 0 | | | | | | |
| | **Supplier A | 65 | L | 2 | 2 | 0 | | | | | | |
| | Supplier A | 65 | L | 2 | 2 | 0 | | | | | | |
| | Supplier A | 50 | L | 2 | 2 | 0 | | | | | | |
| | Supplier A | 50 | L | 24 | 23 | 1 | | 1 | | | | 4.2% |
| | Supplier A | 50 | L | 1 | 1 | 0 | | | | | | |
| | Supplier A | 40 | L | 15 | 15 | 0 | | | | | | |
| | Supplier A | 35 | L | 3 | 3 | 0 | | | | | | |
| | Supplier A | 35 | L | 11 | 11 | 0 | | | | | | |
| | Supplier A | 35 | L | 1 | 1 | 0 | | | | | | |
| | Supplier A | 35 | L | 2 | 2 | 0 | | | | | | |
| | Supplier A | 35 | L | 2 | 2 | 0 | | | | | | |
| | Supplier A | 35 | L | 4 | 4 | 0 | | | | | | |
| | Supplier A | 25 | L | 4 | 4 | 0 | | | | | | |
| | Supplier A | 25 | L | 18 | 15 | 3 | | 3 | | | | 16.7% |
| | Supplier A | 25 | L | 3 | 3 | 0 | | | | | | |
| | Supplier A | 25 | L | 3 | 3 | 0 | | | | | | |
| | Supplier A | 25 | L | 4 | 4 | 0 | | | | | | |
| | Supplier A | 25 | L | 2 | 2 | 0 | | | | | | |
| | Supplier A | 15 | L | 2 | 2 | 0 | | | | | | |
| | Supplier A | 15 | L | 4 | 4 | 0 | | | | | | |
| | Supplier A | 15 | L | 6 | 6 | 0 | | | | | | |
| | | | TOTAL | 2176 | | 141 | 0 | 21 | 43 | 73 | 4 | 6.5% |

*Filters received directly from Customer, boxes opened and filters previously handled. The rejection rate is not reflective of the manufacturer.

** Filters accepted with waiver from purchase order requirements i.e. labeling requirements and was not for performance requirements.